

REMARKS/ARGUMENTS

These remarks are in response to the Office Action mailed on April 6, 2006. Claims 1, 2, 4, and 5 are pending in the present application. Claims 1, 2, 4, and 5 are rejected. Claims 1, 2, 4, and 5 remain pending. For the reasons set forth more fully below, Applicant respectfully submits that the claims as presented are allowable. Consequently, reconsideration, allowance, and passage to issue are respectfully requested.

Claim Rejections - 35 U.S.C. §102

The Examiner has stated:

Claims 1-2 and 4-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Hawthorne et al. (U.S. Patent 5,764,209).

Regarding claim 1, Hawthorne et al. discloses a computer-readable medium (10, see figure 1) and its method containing programming instructions (column 5, lines 52-53) for controlling brightness from a display unit (11, column 5, line 8), the programming instructions comprising:

calculating a display brightness in a certain window (LCD) displayed on a screen of said display unit (11), see column 5, lines 52-55; and

controlling (64, see figure 2) said display unit so as to change said brightness of said display unit (by a filter 23) according to said calculated display brightness.

Regarding claim 2, Ishida discloses the computer-readable medium (Figs. 3-9), the programming instructions further comprising: using a power management function for controlling said display unit so as to change said screen brightness of said display unit (Figs. 3-9, col. 1, lines 60-67, col. 2, lines 1-15, Claim 18).

Regarding claims 2 and 5, Hawthorne discloses the programming instructions and its method further comprising: using a power management function (the power management function including a display panel drivers 40 and conductors 41) for controlling said display unit so as to change said screen brightness of said display unit (column 5, lines 27-33).

Response to Arguments

Applicant's arguments with respect to claims 1, 2, 4 and 5 have been considered but are moot in view of the new ground(s) of rejection.

Despite applicant's disagreement, the examiner decides to provide new rejection as below. Other references have been incorporated to strengthen the examiner's position with respect to the computer-readable medium containing programming instructions for controlling brightness from a display unit.

Applicant respectfully disagrees with the Examiner's rejections. The present invention provides a method for controlling brightness from a display unit. In accordance with the present

invention, the method includes calculating a display brightness in a certain window displayed on a screen of said display unit, and controlling said display unit so as to change said brightness of said display unit according to said calculated display brightness.

Hawthorne discloses an improved testing system and method for testing a flat-panel display. A display is positioned under a high resolution camera for detection of, for example, brightness uniformity across the display. Errors in the detected image due to aliasing are avoided by incrementally shifting the displayed image relative to the camera and detecting the displayed image at various shifted positions. A resulting accurate display can then be reconstructed by identifying those detector pixels generating a maximum signal. A single image may then be reconstructed using only those detected maximum pixel signals. The reconstructed image will be free of aliasing. The reconstructed image may then be analyzed electronically, and any anomalies in the pixels forming the display panel can then be accurately detected. Anomalies due to uneven brightness across the display can be corrected by programming a memory chip for the particular display panel to permanently compensate the display driver signals for each display pixel to eliminate such anomalies in the display. Other tests for viewing angles and chromaticity may also be performed. (Abstract.)

However, Hawthorne does not teach or suggest “calculating a display brightness in a certain window displayed on a screen of said display unit,” as recited in independent claims 1 and 4. The Examiner has referred to column 5, lines 52-55, of Hawthorne as teaching this step. However, Hawthorne does not teach or suggest “calculating a display brightness **in a certain window** displayed on a screen of said display unit” as in the present invention. Instead, Hawthorne teaches determining the “relative brightness of each of the pixels of a display panel” (column 5, lines 56-57). Calculating the display brightness “in a certain window” of the display

unit is different from determining the relative brightness of each pixel of a display panel, because the display brightness of a certain window is focused on a specific area (e.g., one window of multiple windows) of the screen. In contrast from the present invention, Hawthorne does not determine the brightness of a certain window but instead determines the brightness of individual pixels. Furthermore, Hawthorne clearly does not limit the determination to a certain window, which would be expected since the objective of Hawthorne is to correct for brightness nonuniformity among the pixels of a display panel (column 5, lines 52-57).

Furthermore, Hawthorne does not teach or suggest “controlling said display unit so as to change said brightness of said display unit according to said calculated display brightness,” as recited in independent claims 1 and 4. The Examiner has referred to a compensation control unit 64 of Figure 2 and a filter 23 of Figure 1 of Hawthorne as teaching this feature. However, the compensation control unit of Hawthorne does not control screen brightness “according to said calculated display brightness” (i.e., based on the calculated brightness of the certain window). Instead, Hawthorne specifically states that the compensation control unit is applied to the display drivers to “lower the drive voltages for those pixels whose brightness levels need to be attenuated to match that of the minimum brightness pixel” (column 8, lines 49-51). Hawthorne is clearly addressing a different problem (pixel nonuniformity) and performing different steps from the present invention.

Therefore, Hawthorne does not teach or suggest the combination of steps as recited in amended independent claims 1 and 4, and these claims are allowable over Hawthorne.

Dependent claims

Dependent claims 2 and 5 depend from independent claims 1 and 4, respectively. Accordingly, the above-articulated arguments related to independent claims 1 and 4 apply with equal force to claims 2 and 5, which are thus allowable over the cited reference for at least the same reasons as claims 1 and 4.


Conclusion

In view of the foregoing, Applicant submits that claims 1, 2, 4, and 5 are patentable over the cited reference. Applicant, therefore, respectfully requests reconsideration and allowance of the claims as now presented.

Applicant's attorney believes that this application is in condition for allowance. Should any unresolved issues remain, the Examiner is invited to call Applicant's attorney at the telephone number indicated below.

Respectfully submitted,
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